PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Richard Reisman

Atty. Docket No. RR3

Appln. No.: 08/982,157

Group Art Unit: 2782

Filed: December 1, 1997

Examiner: Chein Yuan

For: **COMPUTER-IMPLEMENTED TRANSPORT OF ELECTRONIC INFORMATION OBJECTS**

AMENDMENT UNDER 37 C.F.R. §1.115

Honorable Assistant Commissioner
of Patents
Washington, D.C. 20231

Sir:

In response to the Office Action dated July 21, 1999, please amend the above-identified application as follows:

IN THE CLAIMS:

Please AMEND claims 34-83 as follows:

34. (Amended) An automated electronic information transporter located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a communications [software] module [for effecting] which effects the fetching or sending of information objects across the network between at least one of the remote sources and persistent storage at the user station; and

(b) a transport control [means to control] module which controls transport of the information objects [including] in accordance with:

i) a source address for the at least one remote source [station]; and

ii) an object manifest specifying at least one information object to be transported;

[wherein the object manifest constitutes an object transport control structure for communication of object transport-related specifications between the transport control means and a higher level software entity]

wherein a higher level software entity can be invoked to modify the object manifest.

35. (Amended) [An] The information transporter according to claim 34, wherein the higher level software entity [is selected from the group consisting of a user station user interface, a containing information product located at the user station and containing the information transporter, a database management module located at the user station and providing database processing of an information product available to the user station and] comprises a remote software entity.

36. (Amended) [An] The information transporter according to claim 34, wherein the higher level software entity comprises a viewer for at least one content type available on the communications network, the content type being selected from the group consisting of [ASCII text, word processor, spreadsheet or database formats,] multimedia formats, video formats, sound formats and hypertext markup language ("HTML").

37. (Amended) [An] The information transporter according to claim 36, wherein the communications network is the Internet.

38. (Amended) [An] The information transporter according to claim 34, wherein the higher level software entity can be invoked to modify the object manifest to specify in the object manifest, for each information object listed, one or more desired object transport-related specifications selected from the group consisting of [object name,] object size,[object location,] object content, object format and object availability.

39. (Amended) [An] The information transporter according to claim 34, wherein:

i) the communications network is a broadcast network comprising multiple user stations each provided with the information transporter;

ii) at least one of the remote sources broadcasts a data stream across the network for receipt by the user stations; and

iii) the object manifest at each user station [comprises transport related specifications defining] defines data stream content elements for receipt by the user station.

40. (Amended) [An] The information transporter according to claim 34, wherein:

i) the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources;

ii) the at least one remote source has, for each user station, an object manifest received across the network from the user station and specifying user station identification information; and

iii) each user station repeatedly receives objects [sent] transported by the at least one remote source.

41. (Amended) [An] The information transporter according to claim 40, wherein the object manifest received at the remote source specifies user-desired content and the information objects [sent] transported by the remote source to the user station are selected according to the user-desired content specification.

42. (Amended) [An] The information transporter according to claim 41, wherein the user-desired content specification comprises a generic or an alias name to request a latest installment, version or update.

43. (Amended) An automated electronic information transporter [according to claim 34] located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a communications module which effects the fetching or sending of information objects across the network between at least one of the remote sources and persistent storage at the user station; and

(b) transport control module which controls transport of the information objects in accordance with:

i) a source address for the at least one remote source station; and

ii) an object manifest specifying at least one information object to be transported;

wherein:

i) the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources;

ii) the object manifest at each user station contains source originated information object specifications; and

iii) each user station transporter is scheduled to communicate repeatedly and automatically with the at least one of the remote sources and fetch information objects meeting the source originated specifications.

44. (Amended) [An] The information transporter according to claim 34, wherein:

iv) fetched objects can be verified against the object manifest.

45. (Amended) An automated electronic information transporter [according to claim 34] located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a communications module which effects the fetching or sending of information objects

across the network between at least one of the remote sources and persistent storage at the user station; and

(b) transport control module which controls transport of the information objects in accordance with:

i) a source address for the at least one remote source station; and

ii) an object manifest specifying at least one information object to be transported;

wherein:

i) the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources:

ii) the at least one of the remote sources has, for each user station, an object manifest received across the network from the user station and specifying user station identification information;

iii) each object manifest contains user-specified information object selections; and

iv) each user station transporter is scheduled to communicate repeatedly and automatically with the at least one of the remote sources and fetch information objects meeting the user-specified information object selections.

46. (Amended) An automated electronic information transporter [according to claim 34] located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a communications module which effects the fetching or sending of information objects across the network between at least one of the remote sources and persistent storage at the user station; and

(b) transport control module which controls transport of the information objects in accordance with:

i) a source address for the at least one remote source station; and

ii) an object manifest specifying at least one information object to be transported;

wherein:

i) the communication network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources;

ii) each user station has a features directory fetched from the at least one of the remote sources, being a directory of features available at the remote source;

iii) the object manifest at each user station contains selected feature entries built from the fetched features directory; and

iv) each user station transporter is scheduled to communicate repeatedly and automatically with the at least one of the remote sources and fetch information objects specified by the selected feature[s] entries in the object manifest.

47. (Amended) [An] The information transporter according to claim 34, wherein:

i) the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources:

ii) the at least one of the remote sources has, for each user station, an object manifest received across the network from the user station and comprising user-specified information object selections; and

iii) each user station transporter can fetch or receive a response object from the one of the remote sources providing the user-specified information object selections.

48. (Amended) [An] The information transporter according to claim 34, wherein the information transporter is embedded in a containing information product, the [whereby] transporter functionality [is] being activatable via the information product.

49. (Amended) [An] The information transporter according to claim 48, wherein the containing information product is selected from the group consisting of [news products, data products, information products, software products,] self-updated software products, self-updating database products, CD-ROM resident products, online hybrid products, Internet access products, offline Internet access products, mobile Internet access products, short-session Internet access products, [catalog distribution products, catalog ordering products, data collection products and] or intelligent appliance products.

50. (Amended) [An] The information transporter according to claim 34, wherein the information transporter is integrated with user interface and database management tools.

51. (Amended) [An] The information transporter according to claim 50, wherein the user interface and database search tools provide one or more functions selected from the group consisting of authoring, database management, database searching, user interaction and information presentation functions, the information presented being in turn selected from the group consisting of [text,] hypertext, [data, spreadsheet data,] multimedia, video, and sound.

52. (Amended) [An] The information transporter according to claim 34, wherein the object manifest comprises metadata about information objects to be transported and about the time and location availability of said information objects.

53. (Amended) [An] The information transporter according to claim 34, wherein the object manifest is assembled from one or more data sources selected from the group consisting of

data preloaded at the user station,

data from a directory of information objects fetched from one of the remote sources,

data generated by user interaction,

data obtained from processing by a containing information product containing the

transporter,

data from processing by a user interface or database management tools integrated with the transporter, and

data from processing at one of the remote sources.

54. (Amended) [An] The information transporter according to claim 34, wherein the object manifest is used for the exchange of data between the transporter and one or more data sources selected from the group consisting of

data preloaded at the user station,

data from a directory of information objects fetched from one of the remote sources,

data generated by user interaction,

data obtained from processing by a containing information product containing the transporter,

data from processing by a user interface or database management tools integrated with the transporter, and

data from processing at one of the remote sources.

55. (Amended) [An] The information transporter according to claim 34, wherein the information transporter provides [being for] general purpose information transport having transport control and manifest control structures operative independently of the transported information object type and suited to control of transport of an unlimited [set] number of object types.

56. (Amended) [An] The information transporter according to claim 34, wherein:

the object manifest [received at the remote source] employs a generic or an alias name to specify user-desired content; and

the information objects sent by the at least one remote source to the user station are selected according to the user-desired content specification.

sub D5

57. (Amended) [An] The information transporter according to claim 34, wherein the transport control [means] module specifies object processing actions required to prepare or receive an object for or from transport.

58. (Amended) [An] The information transporter according to claim 34, wherein the user station [comprises] is capable of executing multiple communications protocols, and the transport control [means] module [comprises] is responsive to a protocol selection code.

sub D6

59. (Amended) [An] The information transporter according to claim 34, wherein the manifest list is mobile and transportable in the transport session, moving in [one] a predetermined direction between the source station and the user station to request at least one information object to be sent in the other direction between the source station and the user station.

60. (Amended) [An] The information transporter according to claim 34, wherein the transport control [means] module responds to [includes] an object manifest comprising at least one of a send object list, and a fetch object list [or both a send object list and a fetch object list].

sub D7

61. (Amended) An automated electronic information transporter [according to claim 60] located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a communications module which effects the fetching or sending of information objects across the network between at least one of the remote sources and persistent storage at the user station; and

(b) transport control module which controls transport of the information objects in accordance with:

i) a source address for the at least one remote source station; and

ii) an object manifest specifying at least one information object to be transported;

wherein:

the transport control module uses an object manifest comprising at least one of a send object list, and a fetch object list, and [wherein]

the user station includes [an information product having] a user interface [and being] provided by a vendor associated with the source, and [wherein]

the object manifest is created under control of the user interface from [a set of] choices supplied by the vendor.

62. (Amended) [An] The information transporter according to claim 58, wherein the send object list comprises one or more object list elements selected from the group consisting of object action codes specifying source station actions required, object names, object sizes and response object size.

63. (Amended) [An] The information transporter according to claim 60, wherein the fetch object list comprises one or more list elements selected from the group consisting of object names, object sizes and object availability dates.

64. (Amended) [An] The information transporter according to claim 34, wherein the transport control [means] module is responsive to [includes] a completed object manifest having codes to convey the status of the transport operation or to provide for transport of additional information objects, or both.

65. (Amended) [An] The information transporter according to claim 64, wherein for a send operation in which an information object is transported from the user station to the source station, the completed object manifest comprises one or more manifest elements selected from the group consisting of send object additional information, object acceptance codes returned by the source, time of object acceptance codes, response object names and a completion status code to terminate

the send operation and return control.

66. (Amended) [An] The information transporter according to claim 65, wherein the completed object manifest further comprises polling indicator codes enabling polling of the user station by the source station for readiness to perform additional transport operations.

67. (Amended) [An] The information transporter according to claim 65, wherein the completed object manifest further comprises scheduled update indicator codes enabling scheduled fetching of updates by the user station from the source station.

68. (Amended) [An] The information transporter according to claim 34, wherein, for a fetch operation in which an information object is transported from [the] a selected source station to the user station, the completed object manifest comprises one or more manifest elements selected from the group consisting of fetch object additional information, fetch confirmation or failure codes, time of completion or failure codes, a revised availability date for a requested fetch object found to be unavailable and a completion status code.

69. (Amended) [An] The information transporter according to claim 68, wherein the completed object manifest further comprises polling indicator codes enabling polling of the user station by the selected source station for readiness to perform additional transport operations.

70. (Amended) [An] The information transporter according to claim 68, wherein the completed object manifest further comprises scheduled update indicator codes enabling scheduled fetching of updates by the user station from the selected source station.

71. (Amended) [An] The information transporter according to claim 34, wherein:
the transport control [means] module responds to [comprises] an object manifest specifying

an information object to be fetched from [the source] a selected source station and transported to the user station; and [wherein]

the fetched object comprises a directory of features available from the selected source station.

72. (Amended) [An] The information transporter according to claim 71, wherein the [transport control means] the higher level software entity is operative to create a revised object manifest specifying at least one feature obtained from the fetched directory.

73. (Amended) [An] The information transporter according to claim 34, wherein:

the [system] transport control module comprises a transport software component embeddable in a vendor-provided [containing] information product[,];

the vendor [providing] provides update objects [at the at least one] from a selected source [station,]; and

the transport software component [being] is separately suppliable to [one or more] multiple vendors of [multiple containing electronic] respective information products.

74. (Amended) [An] The information transporter according to claim 73, wherein the [information] transport software component [has] further comprises a vendor-related user interface [in the containing information product] permitting specification of transport objects in the object manifest.

75. A method of controlling transport of information objects between persistent storage at a user station and a [at least one] remote information object source on a communications network [, the user station including] uses an information transporter comprising a communications [software] module for sending and receiving information objects on the network and [including a higher level software entity], wherein the method comprises:

(a) communicating object transport specifications, including a source address for the [at least

one] remote information object source, between the information transporter and [the] a higher level software entity employing an object manifest listing at least one information object to be transported; [and]

(b) activating the communications [software] module to transport the at least one information object to or from the source address, in accordance with the object manifest; and

(c) scheduling the transporter to communicate repeatedly and automatically with the remote information object source and transport information objects.

76. (Amended) [A] The method according to claim 75, wherein:

the communications network is a broadcast network comprising multiple user stations each provided with the information transporter; and

[at least one of] the remote [sources] information object source broadcasts a data stream across the network for receipt by the user stations, the method comprising:

(d) [(c)] receiving at each user station data stream content elements defined by specifications in the object manifest.

77. (Amended) [A] The method according to claim 75, wherein the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by [at least one of] the remote information object source, [sources] the method comprising:

(d) [(c)] sending to the [at least one] remote information object source from each user station[,] an object manifest specifying user station identification information; and

(e) [(d)] repeatedly transporting information objects to each user station from the [at least one] remote information object source.

78. (Amended) [A] The method according to claim 77, wherein the object manifest received at the remote information object source specifies user-desired content with a generic or an alias name

and wherein the method comprises:

(f) [(e)] the remote information object source sending to the user station the latest installment, version or update information objects selected according to the generic or alias name.

79. (Amended) A method [according to claim 75] of controlling transport of information objects between persistent storage at a user station and an information object remote source on a communications network using an information transporter comprising a communications module for sending and receiving information objects on the network, the method comprising:

(a) communicating object transport specifications, including a source address for the remote source, between the information transporter and a higher level software entity employing an object manifest listing an information object to be transported;

(b) activating the communications module to transport the information object to or from the source address, in accordance with the object manifest,

wherein the communications network comprises a group of user stations each provided with the information transporter, the object manifest at each user station contains source-originated information object specifications and each user station is a client station of an information object distribution service provided by [at least one of] the remote [sources] source and wherein the method further comprises:

(c) scheduling each [user station] transporter to communicate repeatedly and automatically with the [at least one] remote source and [fetch] transport information objects meeting the source-originated specifications.

80. (Amended) [A] The method according to claim 75, further comprising [the] verifying [fetched] transported objects against the object manifest.

81. (Amended) A method [according to claim 75] of controlling transport of information objects between persistent storage at a user station and an information object remote source on a

communications network using an information transporter comprising a communications module for sending and receiving information objects on the network, the method comprising:

(a) communicating object transport specifications, including a source address for the remote source, between the information transporter and a higher level software entity employing an object manifest listing at least one information object to be transported;

(b) activating the communications module to transport the at least one information object to or from the source address, in accordance with the object manifest,

wherein the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by [at least one of] the remote source[s], the method further comprising:

(c) sending to the [at least one] remote source, from each user station, the [an] object manifest comprising user-specified information object selections; and

(d) scheduling each [user station] transporter to communicate repeatedly and automatically with the [at least one] remote source and [fetch] transport information objects meeting the user specifications.

82. (Amended) A method [according to claim 75] of controlling transport of information objects between persistent storage at a user station and an information object remote source on a communications network using an information transporter comprising a communications module for sending and receiving information objects on the network, the method comprising:

(a) communicating object transport specifications, including a source address for the [at least one] remote source, between the information transporter and a higher level software entity employing an object manifest listing at least one information object to be transported;

(b) activating the communications module to transport the at least one information object to or from the source address, in accordance with the object manifest,

wherein the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution

service provided by at least one of the remote sources, the method further comprising:

c) [each user station] fetching a features directory listing features available at the remote source from the [at least one] remote source to each user station [, being a director of features available at the remote source];

d) building, at each user station, an object manifest containing selected feature entries obtained from the fetched features directory; and

e) scheduling each user station transporter to communicate repeatedly and automatically with the [at least one] remote source and [fetch] transport information objects specified by the selected features entries in the object manifest.

83. (Amended) The [A] method according to claim 75, wherein the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by [at least one of] the remote source[s], the method comprising:

(d) [c)] sending to the [at least one] remote source, from each user station, an object manifest comprising user specified information object selections; and

(e) [d)] using each user station transporter to fetch or receive a response object from the remote source providing the user-specified information object selection.

Please add new claims 84-107 as follows:

--84. The information transporter according to claim 34, wherein the higher level software entity can be invoked to modify the object manifest to specify in the object manifest, for each information object listed, one or more desired object transport-related specifications selected from the group consisting of object name and object location.--

--85. The information transporter according to claim 48, wherein the containing information

product is selected from the group consisting of news products, data products, information products, software products, catalog distribution products, catalog ordering products, or data collection products.--

--86. (Amended) The information transporter according to claim 50, wherein the user interface and database search tools provide one or more functions selected from the group consisting of authoring, database management, database searching, user interaction and information presentation functions, the information presented being in turn selected from the group consisting of text, data, and spreadsheet data.--

--87. An automated electronic information transporter located at a user station for controlling transport of information objects on a communications network including a higher level software entity and providing access to multiple remote sources, the information transporter comprising:

(a) a communications module which effects the fetching or sending of information objects across the network between at least one of the remote sources and the user station; and

(b) a transport control module which controls the transport of the information objects in accordance with:

i) a source address for the at least one remote source; and

ii) an object manifest specifying at least one information object to be transported;

wherein a higher level software entity can be invoked to modify the object manifest.--

--88. The information transporter as recited in claim 87, wherein the higher level software entity can be invoked to modify or create the object manifest.--

--89. The information transporter as recited in claim 87, wherein the object manifest specifies

multiple information objects to be transported.--

--90. The information transporter as recited in claim 87, wherein the object manifest lists a plurality of object transport-related specifications of multiple information objects to be transported, including the identity of each information object to be transported, and at least one additional object transport-related specification of each information object to be transported.--

--91. An automated electronic information transporter located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a communications module which effects the fetching or sending of information objects across the network between at least one of the remote sources and persistent storage at the user station; and

(b) a separable transport control module which controls the transport of the information objects in accordance with:

i) a source address for the at least one remote source station; and

ii) an object manifest specifying at least one information object to be transported;

wherein a higher level software entity can be invoked to modify the object manifest.--

--92. The information transporter as recited in claim 91, wherein the higher level software entity can be invoked to modify or create the object manifest.--

--93. The information transporter as recited in claim 91, wherein the object manifest specifies multiple information objects to be transported.--

--94. The information transporter as recited in claim 91, wherein the object manifest list a

plurality of object transport-related specifications of multiple information objects to be transported, including the identity of each information object to be transported, and at least one additional object transport-related specification of each information object to be transported.--

--95. An automated electronic information transporter located at a user station for controlling transport of information objects on a communications network providing access to multiple remote sources, the information transporter comprising:

(a) a separable communications module which selectively fetches or transports information objects across the network between at least one of the remote sources and the user station; and

(b) a transport control module which controls the transport of the information objects in accordance with:

i) a source address for the at least one remote source; and

ii) a user-modifiable object manifest specifying at least one information object to be transported.--

--96. The information transporter as recited in claim 95, wherein a higher level software entity modifies the object manifest responsive to a command generated at the user station.--

--97. The information transporter as recited in claim 96, wherein the higher level software entity is disposed at the user station.--

--98. The information transporter according to claim 96, wherein the higher level software entity comprises a remote software entity.--

--99. The information transporter according to claim 96, wherein the higher level software entity can be invoked to modify the object manifest to specify in the object manifest, for each information object listed, one or more desired object transport-related specifications selected from

the group consisting of object size, object content, object format and object availability.--

--100. The information transporter according to claim 95, wherein the communications network is the Internet.--

--101. The information transporter according to claim 95, wherein:

i) the communications network is a broadcast network comprising multiple user stations each provided with the information transporter;

ii) at least one of the remote sources broadcasts a data stream across the network for receipt by the user stations; and

iii) the object manifest at each user station defines data stream content elements for receipt by the user station.--

--102. The information transporter according to claim 95, wherein:

i) the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources;

ii) the at least one remote source has, for each user station, an object manifest received across the network from the user station and specifying user station identification information; and

iii) each user station repeatedly receives objects transported by the at least one remote source.--

--103. The information transporter according to claim 95, wherein:

i) the communications network comprises a group of user stations each provided with the information transporter and each being a client station of an information object distribution service provided by at least one of the remote sources:

ii) the at least one of the remote sources has, for each user station, an object manifest received across the network from the user station and comprising user-specified information object selections; and

iii) each user station transporter can fetch or receive a response object from the one of the remote sources providing the user-specified information object selections.--

--104. The information transporter according to claim 95, wherein:

the information transporter is embedded in a containing information product; and

the information transporter functionality can be activated during operation of the information product.--

--105. The information transporter according to claim 95, wherein the information transporter is integrated with user interface and database management tools.--

--106. The information transporter according to claim 95, wherein the object manifest comprises metadata about information objects to be transported and about the time, location, and availability of the information objects.--

--107. The information transporter according to claim 34, wherein the communications module comprises a separable communications module.--

REMARKS

The Office Action was mailed on July 21, 1999, and set a shortened statutory reply period of three months. Attached hereto is a Petition for an Extension of Time of Two Months and our check for the prescribed fee. Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension in excess of the amount paid by check is to be charged to Deposit Account No. 16-2372.

Claims 34-107 are pending in the application as a result of the instant Amendment. In the Amendment, claims 34-83 are amended for clarity. New claims 84-107 are added to recite the subject matter of claims 34-83 in alternative language.

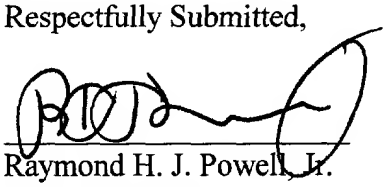
The Transmittal Letter and attached check accompanying the Amendment forward the requisite Excess Claim Fee Payment for the addition of new claims 84-107 and for increasing the number of independent claims from 2 to 13.

The Applicant is grateful for the indication in the previous Office Action that claims 38, 43, 45, 46, 61, 79, 81, and 82 contain patentable subject matter. In the Amendment, claims 43, 45, 46, 61, 79, 81 and 82 are rewritten in independent form. However, it will be noted that only that portion of claim 38 which is considered to provide a distinct basis for allowance was incorporated into previously pending independent claim 34. Likewise, the recitation common to claims 79, 81, and 82, which Applicant believe to be the basis for the allowance of claims 79, 81, and 82, was incorporated into claim 75.

In light of the amendments and remarks presented above, it is respectfully submitted that the application is in condition for allowance, and such action is hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully Submitted,



Raymond H. J. Powell, Jr.
Reg. No. 34,231

WESTERLUND POWELL, P.C.
122 N. Alfred Street
Alexandria, Virginia 22314-3011

Phone: (703) 706-5862
Fax: (703) 706-5860

Date: December 21, 1999